The ARMY in

SATELLITE COMMUNICATIONS

U. S. ARMY SATELLITE COMMUNICATIONS AGENCY

FORT MONMOUTH, NEW JERSEY 07703

SATCOM INFORMATION OFFICE

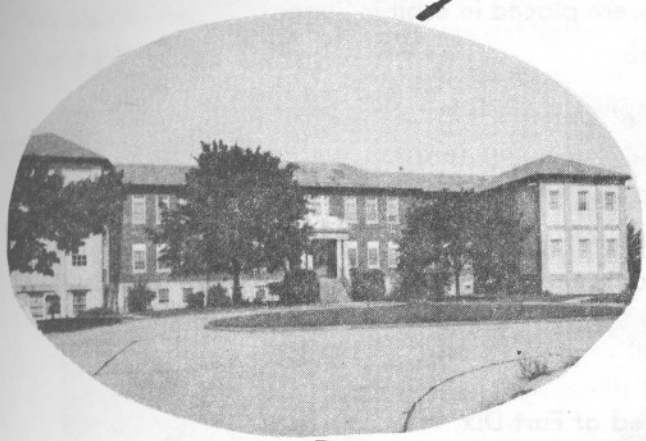
201-532-1844

The U. S. Army Satellite Communications (SATCOM) Agency, a project managed activity of the U. S. Army Materiel Command, is the Army focal point for satellite communications with responsibility for providing the ground environment for all Department of Defense satellite communications systems. The SATCOM Agency also represents the Army in special Department of Defense satellite projects and acts as the Army's agent for all international military satellite communications programs.

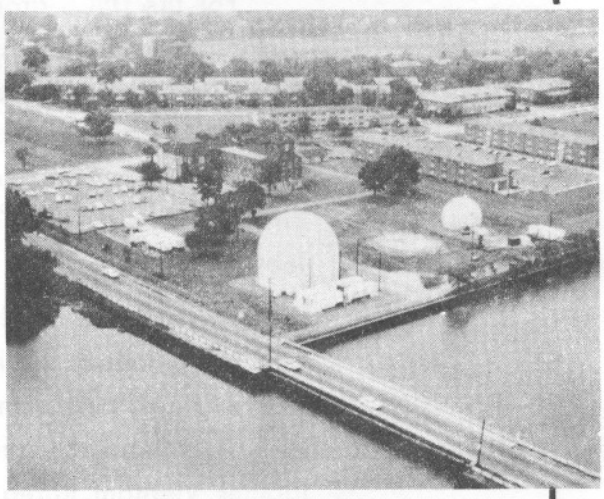
SATCOM Agency has an authorized strength of approximately 300, an integrated staff of civilian and military scientists and engineers. To carry out the Army mission in satellite communications, the Agency designs, develops and deploys ground satellite communications terminals, surveys and recommends terminal sites, supervises site construction, and plans and conducts the communications test programs for all military satellite communications systems, both R&D and operational. In all systems, the satellites are developed and launched by the Air Force.

SATCOM AGENCY

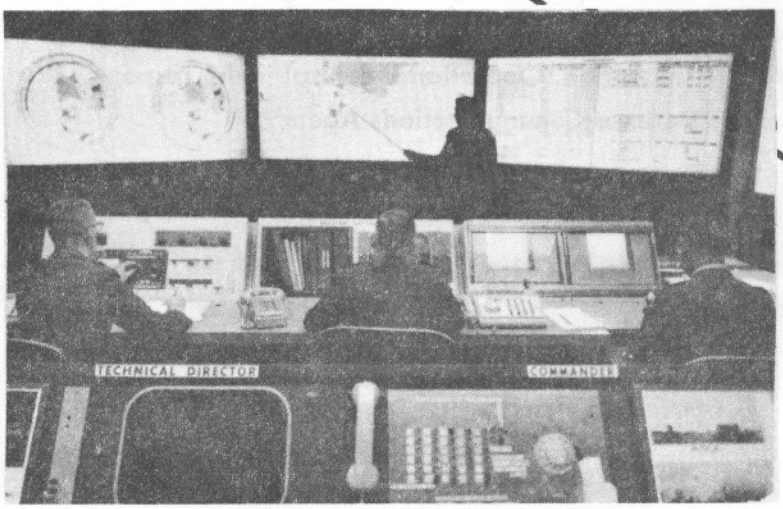
SATCOM FIELD STATION NO 1
LAKEHURST



SATCOM



SATCOM ENGINEERING TEST FACILITY



SATCOM TEST OPERATIONS CENTER

The DSCS is the world's first global satellite communications system—instantaneously and dependably carrying Department of Defense messages twenty four hours a day.

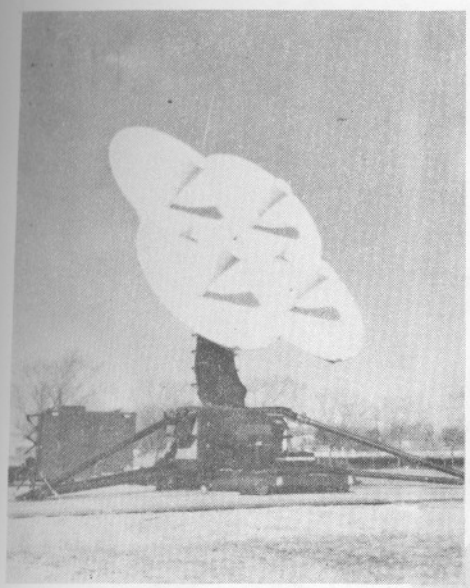
A total of twenty-six near synchronous satellites were launched by the Air Force in four TITAN IIIC multiple payloads. The first seven satellites were placed in orbit in June 1966; the last eight in June 1968.

For the DSCS ground complex, SATCOM developed and deployed a total of thirty satellite communications terminals of three different types: fixed AN/FSC–9's with sixty foot parabolic antennas; air transportable AN/MSC-46's with forty foot parabolic antennas; and lightweight, air transportable AN/TSC–54's with eighteen foot cloverleaf antennas.

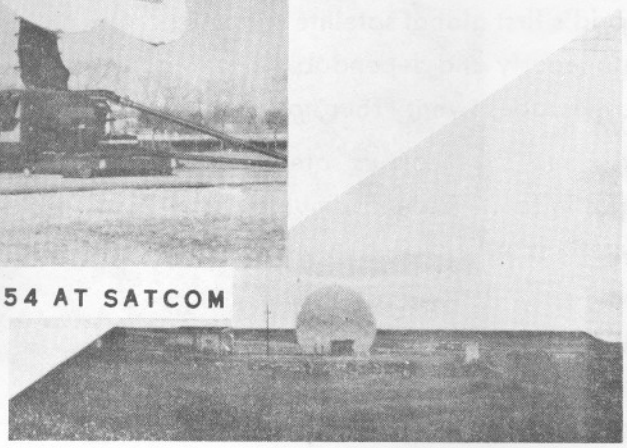
The fixed terminals are sited at Fort Dix, New Jersey and Camp Roberts, California. The transportable types are located singly or in combination in New Jersey, Maryland, Virginia, Illinois, Oklahoma, Alaska, Hawaii, Guam, Philippines, Vietnam, Korea, Thailand, Australia, Ethiopia, Germany and Turkey.

Although these terminals are Army developments, operational responsibility within the DSCS rests with each of the services—Army, Navy and Air Force—according to terminal location. Operational control is the responsibility of the Defense Communications Agency.

DEFENSE SATELLITE COMMUNICATIONS SYSTEM (DSCS)

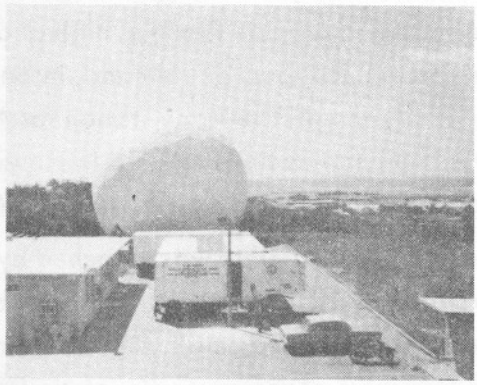


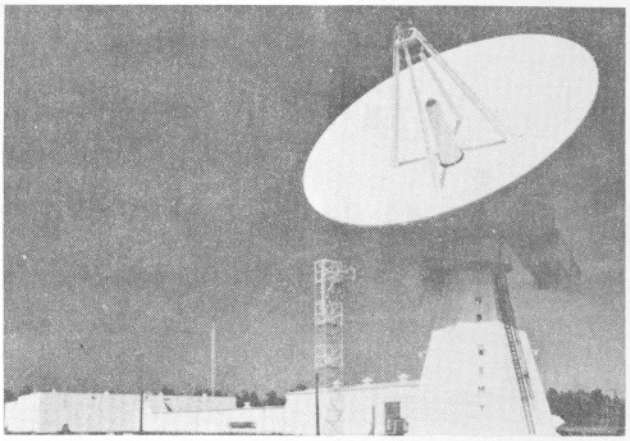
AN/TSC-54 AT SATCOM



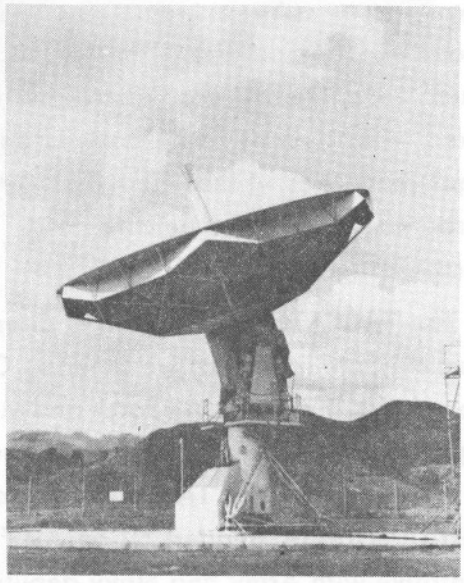
AN/TSC-54 IN ALASKA

AN/MSC-46 IN OKINAWA

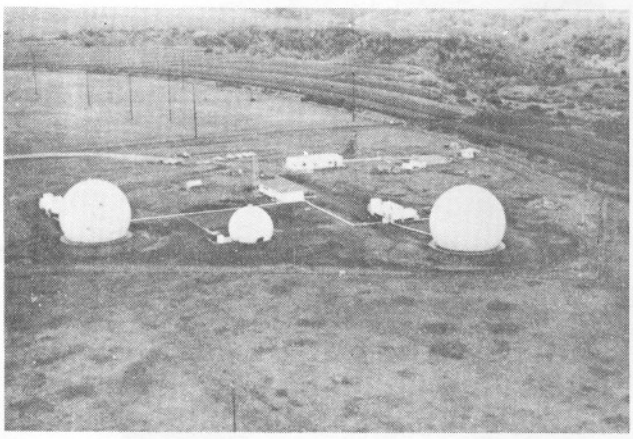




AN/FSC-9 IN FORT DIX N. J.



AN/MSC-46 IN PHILIPPINES



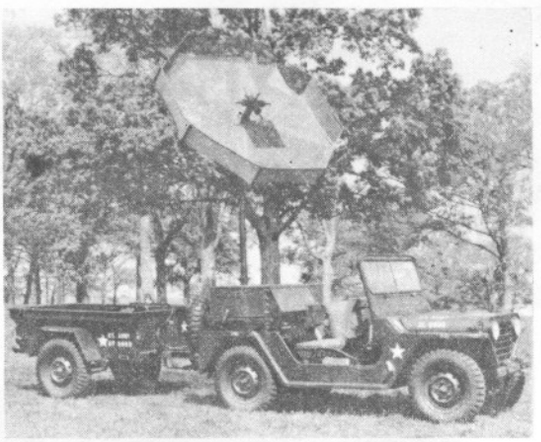
AN/TSC-54 AN/MSC-46 IN HAWAII

TACSATCOM is an experimental program to test the feasibility of satellite communications for combat forces.

During the APOLLO missions, TACSATCOM provided primary command communications for spacecraft recovery demonstrating the capability of the system to provide flexible, high quality, reliable communications, on demand, in an operational environment. The Army station for APOLLO recovery communications located in Hawaii, was operated and controlled by the SATCOM Agency.

The TACSAT 1 satellite was launched by the Air Force in February 1969 concurrent with delivery of specially developed small, portable terminals. These terminals cover a variety of designs: one man carry devices for listening only; terminals which break down into packages for back pack by communications teams (team pack); jeep mounted terminals; shelters transportable by truck, helicopter or cargo aircraft; installations in fixed wing aircraft or helicopters and seagoing equipment. Any of these terminals—land, sea or airborne—can communicate with any other through the satellite.

The TACSATCOM Program is directed by the Tactical Satellite Executive Steering Group composed of Army, Navy, Air Force and Marine Corps representatives. Technical and operational testing is controlled by the TACSATCOM Joint Service Test Directorate, headed by an Air Force representative with Army and Navy deputies, located at SATCOM Agency headquarters.

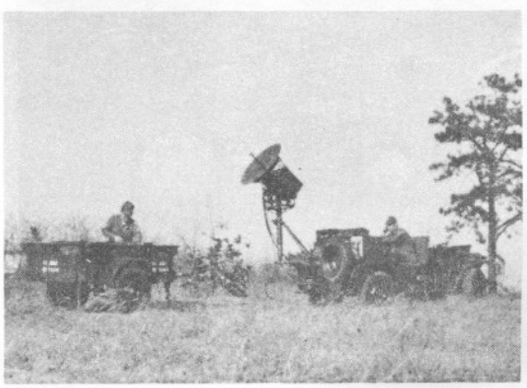


● JEEP

AN/MSC-58 UHF

● AIRBORNE

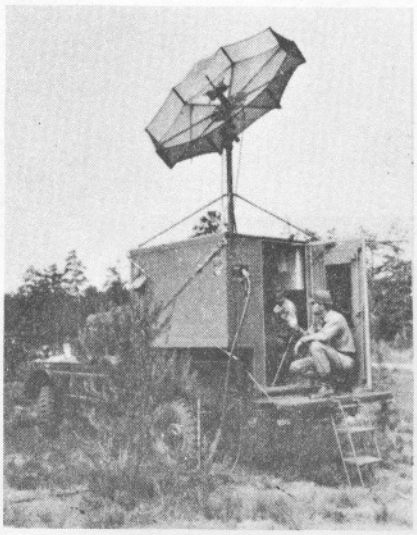
AN/ARC-146 UHF



● JEEP

AN/MSC-57 SHF

● 1 1/4-TON SHELTER



AN/TRC-157 UHF

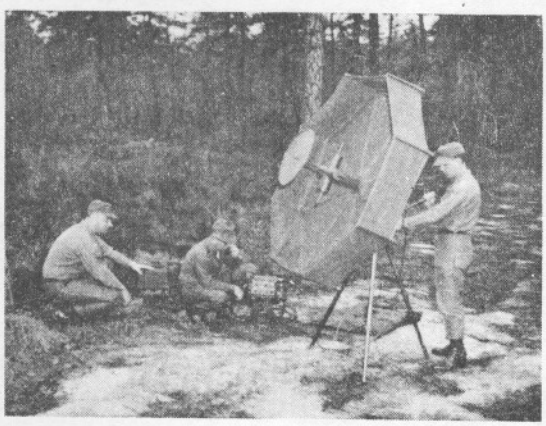
AN/TSC-79 SHF

● TEAM PACK

TACSATCOM

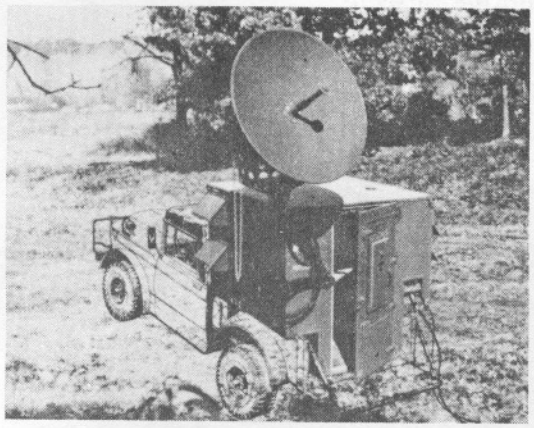
TACTICAL

SATELLITE COMMUNICATIONS



AN/TRC-156 UHF

● TEAM PACK



● 1 1 4-TON SHELTER

AN/TSC-80 SHF

SATCOM Agency activities also include participation with the Navy and Air Force in meteorological and navigational satellite systems and with NASA in satellite communications research and development.

Internationally, SATCOM has played a leading role in the cooperative NATO program on TACSATCOM experiments. The Agency also gives technical assistance to these nations in the development of ground terminals for long range satellite communications systems.

As the Army's source for systems engineering in satellite communications, the Agency has the task of continually exploring all aspects of the ground environment. Taking advantage of ever-increasing technological progress, SATCOM studies and experiments are designed to exploit the potential of military satellite communications to the fullest.